

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 16-38. Claims 27 and 33 are currently amended. Claims 16-26 are withdrawn. Claims 1-15 are cancelled.

The amendment to claim 27 incorporates subject matter from claims 16 and 19.

The amendment to claim 33 incorporates subject matter from claim 22.

The remaining amendments to claims 27 and 33 are editorial and self explanatory.

No new matter is added.

Claim Objections

Claims 27 and 33 are objected to over informalities. Claims 27 and 33 are currently amended to address the claim objections.

Claims Rejections – 35 USC § 103

Claims 27-38 are rejected under 35 USC § 103(a) as being unpatentable over Maeda et al. (US 6,189,771) in view of Imamura et al. (US 2002/0185309).

Applicants respectfully traverse this rejection.

The present invention is directed to soldering processes which use a specific flux. More specifically, the process recited in claim 27 uses a flux which contains a metal powder in the form of thin pieces, scales or dendrites. The process of claim 33 uses a flux which contains a metal powder which contains elements comprising cores and coatings around the cores.

Imamura et al. disclose a flux paste which contains a base flux and metal grains. As evidenced by the teachings throughout the specification of Imamura et al., one of ordinary skill in the art would clearly understand that the metal grains in Imamura et al. are in the form of spheres.

Imamura et al. often mention the “diameter” of the grains (see, for example, claim 1).

Particularly, paragraph (0064) of Imamura et al. describes the metal grains in detail with reference to their diameters, and this description is clearly based on the fact that the metal grains are in the form of spheres. Further, paragraph (0070) also refers to a spherical shape. The invention of Imamura et al. would not be possible if the metal grains were in a form which is anything other than spherical.

On the other hand, in the presently amended claim 27, the shape of the metal powder is in

the form of thin pieces, scales or dendrites which are very different from spherical. The combination of Imamura et al. and Maeda et al., would also not lead to the thin pieces, scales or dendrites of claim 27. Further, there is no suggestion or motivation in the references to modify the spherical shape of Imamura et al. to the presently recited thin pieces, scales or dendrites. Accordingly, the rejection of claim 27 should be withdrawn.

With regard to claim 33, the Examiner asserts Imamura et al. as teaching a method of mounting an electronic component by using a flux that comprises a metal powder which contains elements comprising cores and coatings around the cores. However, Applicants respectfully submit that Imamura et al., in paragraphs [0064]-[0066] and [0078] cited by the Examiner, do not mention a flux that comprises a metal powder of which constituting elements are comprised of cores and coatings around the cores as recited in claim 33. In fact, Imamura et al. in paragraph [0065] cited by the Examiner specifically state that the flux is a normal soldering flux. Accordingly, the references do not disclose or suggest all of the features of claim 33 and the rejection of this claim should be withdrawn.

Claims 28-32 and 34-38 are each dependent on either claim 27 or 33 and are thus allowable as well.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned at the telephone number below.

Respectfully submitted,

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